Abstract

A smog filtering system designed for a city that will generate electric power.

A solar chimney assembly including a chimney (3) is build using a mountain (11) as support. The chimney (3) receives air from a solar heat collector (1) that heats the air below it creating an updraft of air. The air goes up because of the difference in temperature and the difference of pressure between the base and the top of the chimney. This higher the difference of temperature and pressure, the faster the air will go up. An array of turbines (2) is driven by the air. The chimney (3) will be as high as the mountain (approximately 1,000 meters high or higher) and will go above the ***inversion layer*** or ***thermic ceiling*** (10). At the top of the chimney, a fine mist of electrically charged water (5), taken from a reservoir (4) is sprayed across the top of the tower, attracting pollution in the air like sulfur dioxide, soot and other particles. The water will fall because of gravity and will be collected in a second reservoir (6) and will be used to send it down the mountain through a pipe (7) to generate additional electric power with a turbine (8).